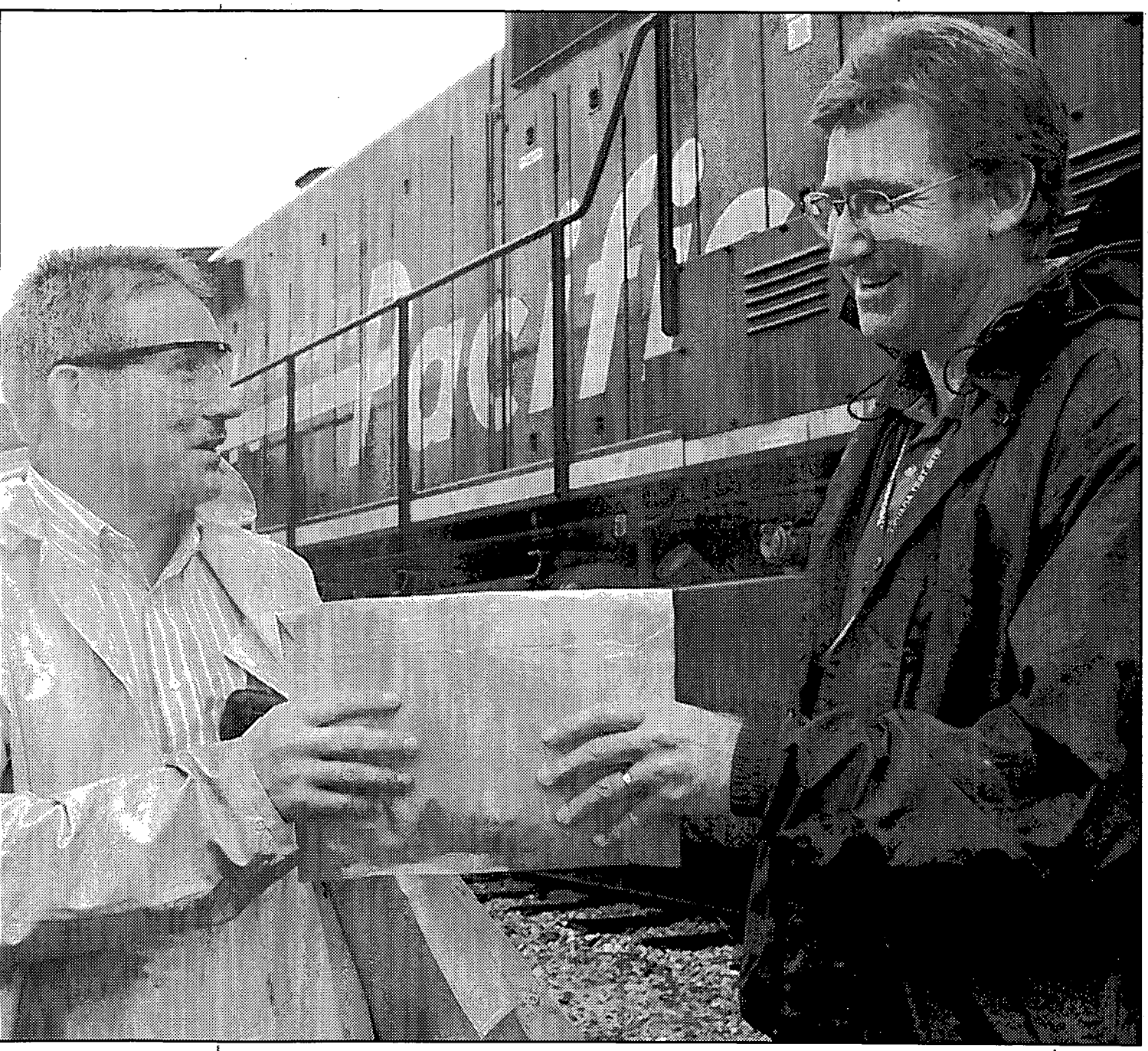
fernald

Report

2632

October 1999

Inside



message from
JackCraig

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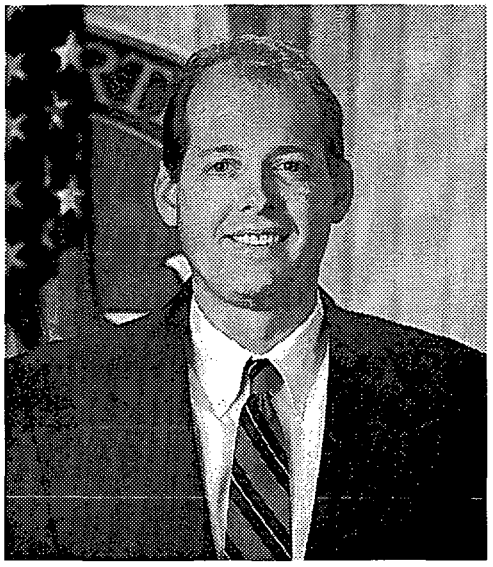
Changes to come

Recently Dr. Carolyn Huntoon, Assistant Secretary for the Department of Energy Office of Environmental Management announced the need to make some organizational changes, which are expected to be complete this month. The Office of Environmental Management (EM) will now consist of five major offices: Planning and Budget; Integration and Disposition; Project Completion; Project Closure; and Science and Technology.



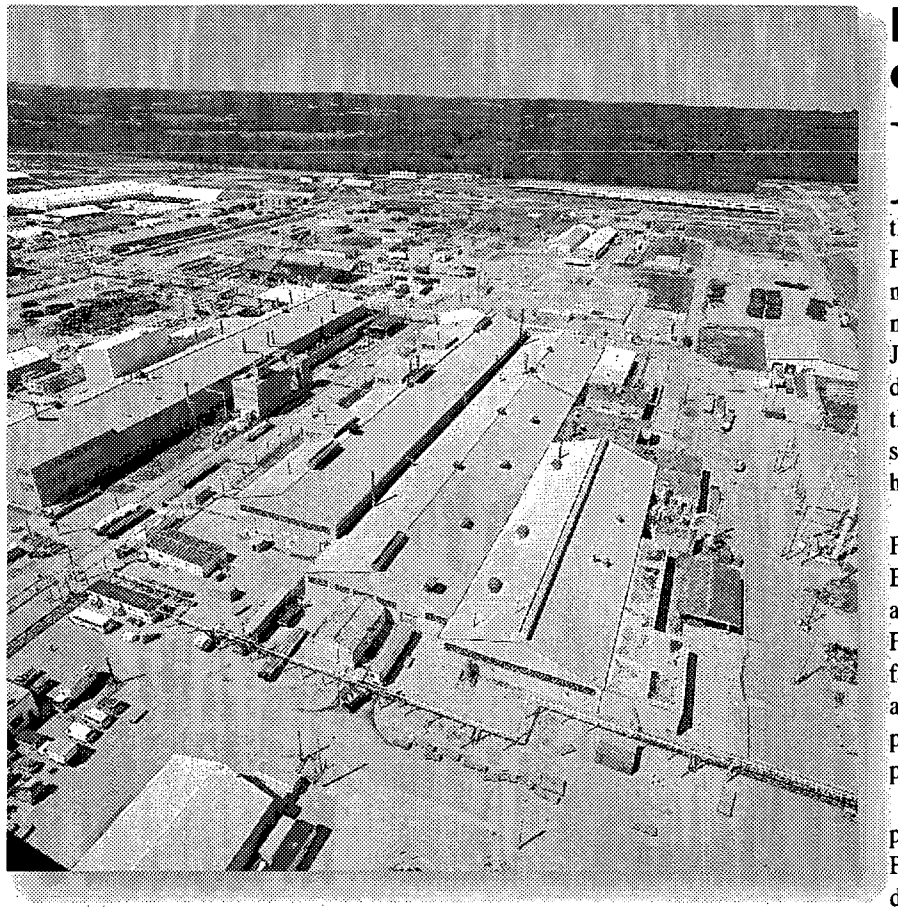
The organizational changes will align DOE-HQ with Dr. Huntoon's commitment to current program goals. Dr. Huntoon wants to continue to meet EM's legal obligations and close as many sites as possible, including Fernald, Rocky Flats and the Mound by 2006. Reducing EM's operational costs and increasing efficiency will be the focus while encouraging stakeholder input in the decision-making process. The program goals will need to be governed by specific principles announced by Dr. Huntoon.

The first and most important principle is the safety of the workers and the public. At Fernald,we emphasize that safety comes first in everything we do. This message is carried out through more than 150 active safety workgroups. Perhaps more importantly, it's also a message that reaches beyond the workplace and into our homes. The second principle is to apply the best science and technology to solving problems and reducing costs. It is estimated that Fernald has saved more than $100 million through the use of innovative technologies that have been deployed in the cleanup. Dr. Huntoon also wants to strengthen project management and to build the public's confidence by involving stakeholders in the process. Fernald has built a solid relationship with the stakeholders and looks to them for input in the final closure plans. The last principle defined by Dr. Huntoon is to develop an effective long-term stewardship program. We are currently working on the framework for this program.

Dr. Huntoon is clearly committed to our mission at Fernald. We will continue to move forward with our efforts of promoting a safe, efficient cleanup and we will look to her organization to help expedite our efforts.

Jack Craig
Director, DOE-Fernald

On the cover: *Jeff Rowe, Fluor Daniel Fernald rail operations manager, transfers paperwork to John Conn, CSXT conductor. Conn, a former Fluor Daniel Fernald team member, completed the CSX conductor training course in 1997, as part of Fluor Daniel Fernald's efforts to retrain the workfor through the tuition reimbursement program (6349-d1653).*



Above: In March, Plant 6 was the site of a public celebration attended by Secretary of Energy Bill Richardson marking the completion of the Safe Shutdown project (7213-48).

NSC wins Plant 6 contract

Fluor Daniel Fernald has awarded an $8.54 million, three-year subcontract to NSC Energy Services of Knoxville, Tenn., to demolish Plant 6, the former Metals Fabrication Plant. "The demolition of Plant 6 is the last big piece to fall into place so we can move forward with the below-grade remediation of a major portion of the site's former production area," said John Trygier, DOE's project manager for building demolition at Fernald. This is a major step forward in the cleanup progress. When this demolition is complete, six of the 10 major former production facilities will have been dismantled."

Following an extensive competitive proposal process, Fluor Daniel Fernald awarded the subcontract to NSC Energy Services, the offeror rated best overall. In addition to reviewing the bidder's total project cost, Fluor Daniel Fernald evaluated several technical factors, including: overall understanding of the project and operational scheme; health and safety program and performance records; experience of proposed key personnel; and experience in building demolition.

"NSC has worked for us on two previous demolition projects and did an excellent job," said Tom Beasley, Fluor Daniel Fernald decontamination and dismantlement manager. They've established a good rapport with the local building trades, demonstrated a commitment to quality, and understand the importance of safely completing projects on schedule."

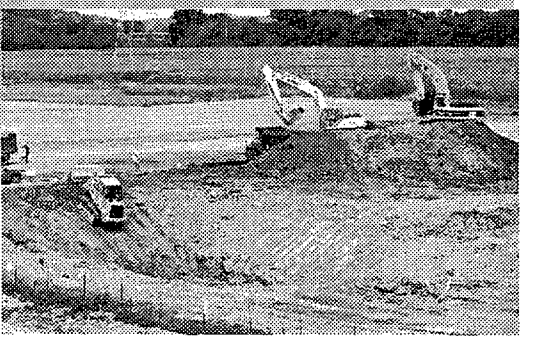
After preparing its implementation and health and safety plans, NSC plans to begin actual decontamination and dismantlement work next year. The project will include the above-grade demolition of the 223,000 square foot facility following asbestos abatement, gross cleaning and equipment removal.

Another Successful Project Completed

All traces of the old Sewage Treatment Plant are gone. Throughout the project, managers from DOE and Fluor Daniel Fernald worked closely with U.S. EPA and Ohio EPA to maximize efficiency and minimize cost while adhering to all regulations and requirements.

Several key activities and lessons learned from the project, included: first mixed waste to be shipped to Envirocare via intermodal transport; first project at Fernald to complete below-grade D&D; designation of RCRA waste was limited to the mixed waste shipped to Envirocare; optimized treatment of wastewater through the Advanced Wastewater Treatment facility; controlled fugitive dust emissions despite the extremely dry conditions; and worked through additional challenges including biological hazards and asbestos.

J.D. Chiou, Fluor Daniel Fernald project manager, said, "The success of this project relied upon great teamwork from many groups and especially the regulators. We also gained knowledge and experience dealing with underground D&D that we can apply to future projects."



Above: The deepest excavation at the old Sewage Treatment Plant was about 20 feet. A record 400 truck loads of contaminated soil was delivered to the On-Site Disposal Facility in one day (6620-d337).

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Cleanup **Progress** Update

Waste Pits Remedial Action Project (WPRAP)

- Shipped eighth and ninth unit trains to Envirocare of Utah
- Continued preparations for Dryer Operations Standard Startup Review
- Initiated excavation of material from Waste Pit #3

On-Site Disposal Facility (OSDF)

- Continued placement of materials in Cells 1 and 2
- Completed construction of secondary liner system and began construction of primary liner system in Cell 3

Above:
A tandem truck dumps soil that will be used to construct a berm around the debris that is being placed in the OSDF (6349-d186).

Right:
Geosyntec employees measure debris to determine if it meets the Waste Acceptance Criteria size requirements prior to being placed in a cell (6319-d2173).

Demolition Projects

Facilities Shutdown

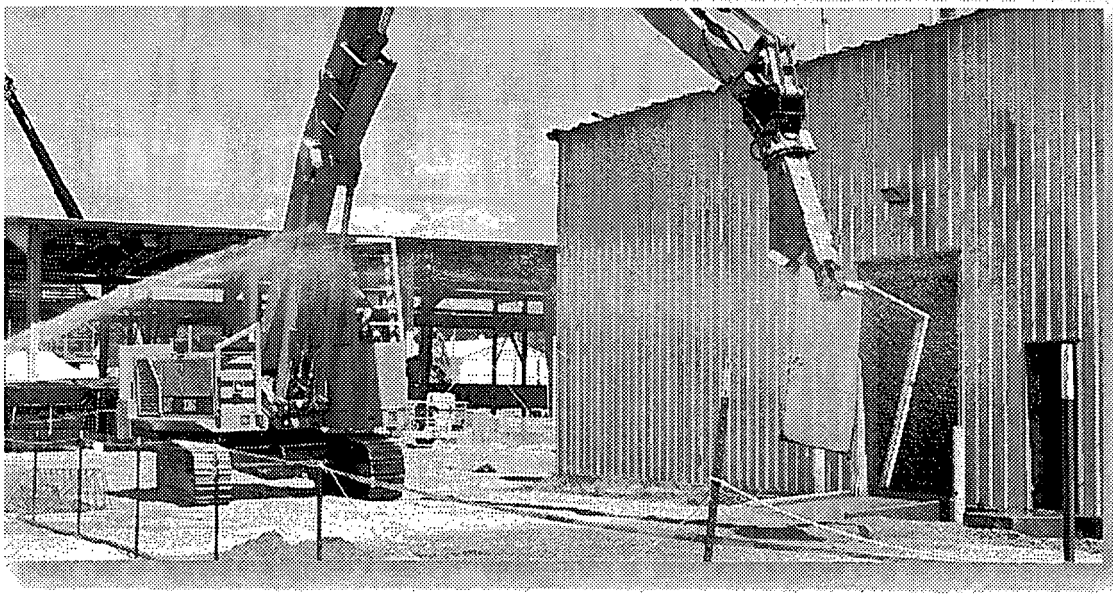
- Continued work on General Sump Complex

Decontamination & Dismantlement (D&D)

- Plant 5 Complex —
  - Began preparation of work area in Buildings 5A and 5D
  - Completed demolition of Building 5E
- Plant 6/East Warehouse Complex —
  - Awarded D&D contract to NSC Energy Services
- Miscellaneous Small Structures Project
  - Continued field work on Building 63

Silos Project

- Continued preparation of *Silos 1 and 2 Revised Feasibility Study*
- Continued review of contractor submittals for Silo 3 Project and Silos 1 and 2 Accelerated Waste Retrieval Project
- Conducted Silo 3 preliminary design update for regulatory agencies



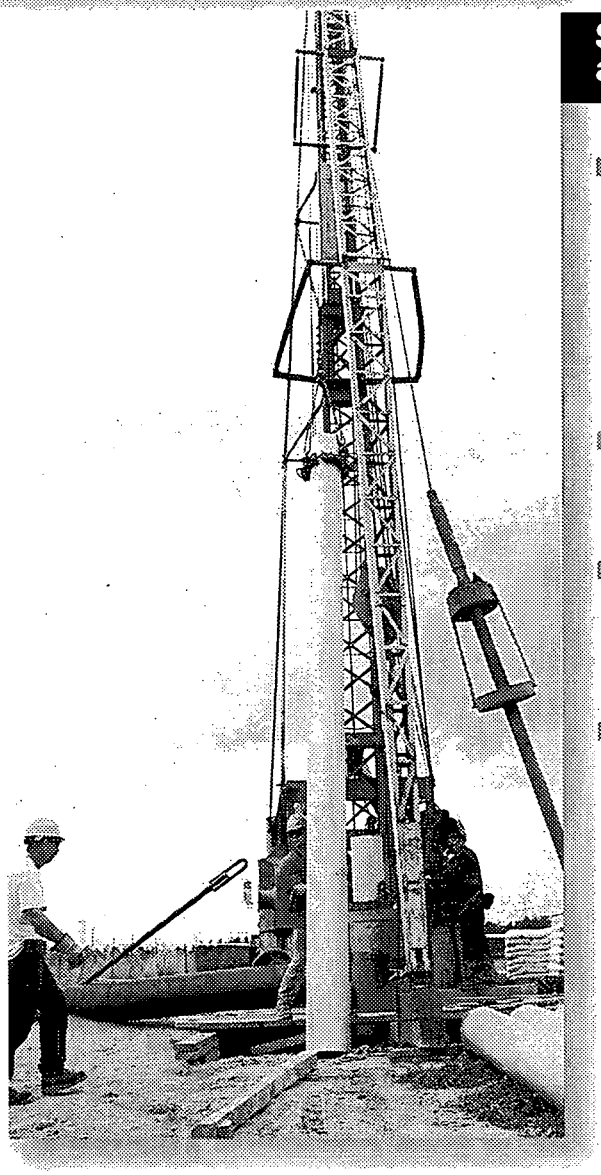
Above:
Jim Winholtz, a Wise Services equipment operator, signs a radiation work permit prior to entering the Graphite Burn Pad. The pad was one of the components that was demolished as part of the Miscellaneous Small Structures D&D project (7177-d099).

Left:
An extended sheer begins to dismantle Building 5E, which is part of the $8.8 million Plant 5 Complex Demolition & Dismantlement Project (6401-d241).

Cleanup **Progress** Update

Top:
A large granite bolder was uncovered during the excavation of the Sewage Treatment Plant project. The boulder will be used as landscaping for the Wetlands project. (6620-d329)

Right:
A drill operator prepares to place a well casing into the ground for an extraction well, which will then be used to pull contaminated water from the aquifer (7207-d22).



Aquifer Restoration/ Wastewater Project

- Completed construction of Advanced Wastewater Treatment Facility Laboratory Expansion
- Completed conceptual design of new permanent Leachate Transmission System
- Awarded contract for the construction of two additional groundwater extraction wells and associated piping to Staver Group

Soil Characterization and Excavation Project

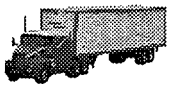
- Area 1 Phase II - Southern Portion of East Field
  - Completed demolition and hauling of major structures in old Sewage Treatment Plant (STP) area; completed excavation and size reduction of underground utilities inside STP
  - Completed all field activities in Trap Range area
- Area 2 Phase I - Southern Waste Units
  - Continued excavation of South Field and the South Field stockpiles
- Area 2 Phase III - South Central Portion of Fernald Site
  - Completed analysis of certification samples; data validation is ongoing
- Areas 3, 4 and 5 - Former Production Areas
  - Initiated efforts to create single construction contract for On-Site Disposal Facility and Area 3A/4A Excavation

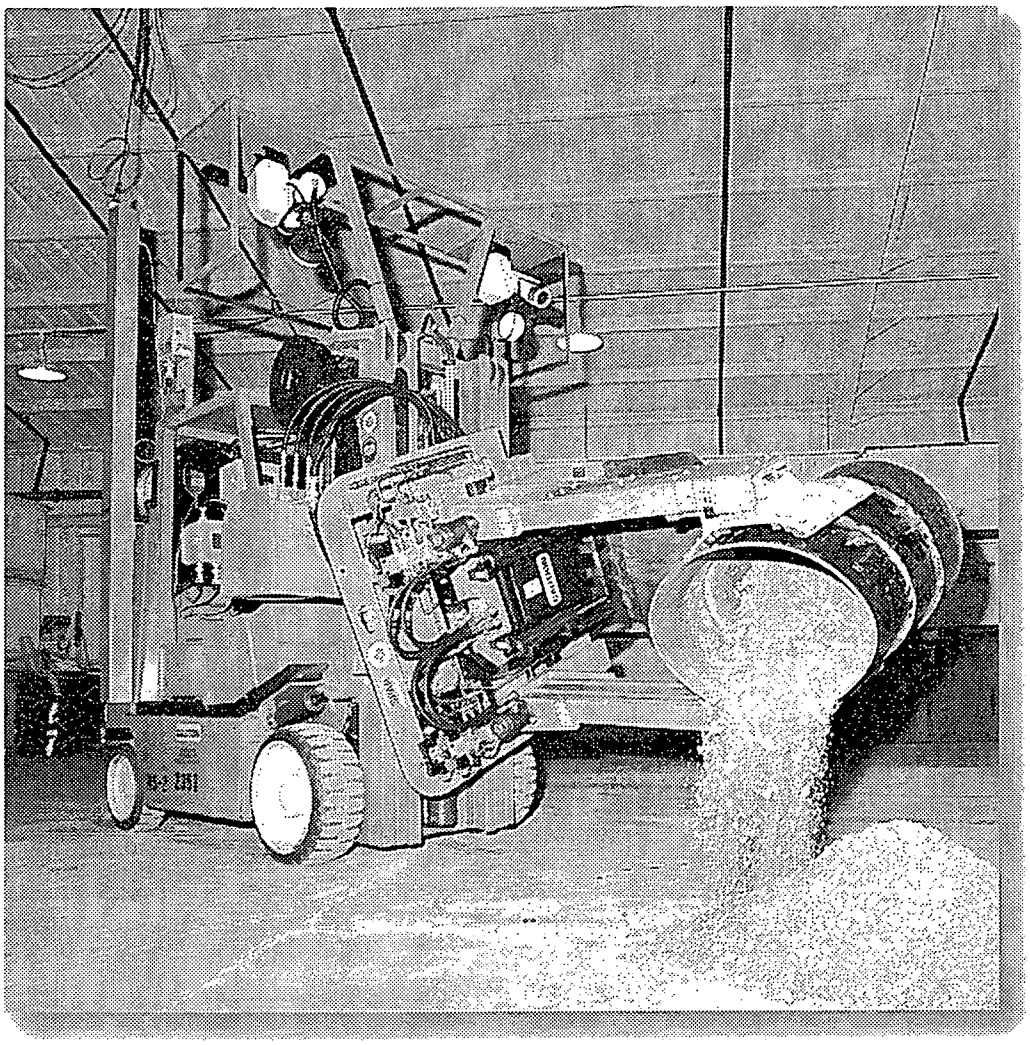
Waste Management Projects

- Thorium Legacy Waste Project —
  - Performed real-time radiography of boxes containing thoria gel to support shipment of thorium waste to the Nevada Test Site
- Nuclear Materials Disposition —
  - Continued repackaging of depleted uranium tetrafluoride (UF4) for shipment to DOE-Oak Ridge
  - Continued movement of Fernald's uranium to DOE-Oak Ridge site at Portsmouth, OH

Left: Enriched restricted material located in the 4B Warehouse will be weighed and moved prior to preparing the warehouse for demolition (7228-d07).

Fernald Shipments — September 1999

Contents / Destination	Shipment Mode	No. of Shipments	Monthly Total	FY99 Total
Low-Level Waste (Nevada Test Site)		34	77,035.5 cu. ft.	108,120 cu. ft.
Liquid Mixed Waste - Toxic Substance Control Act Incinerator at Oak Ridge		0	0 gal.	34,761 gal.
Nuclear product/materials (Portsmouth)		28	742,868 net lbs. or 255.4 metric tons uranium	3,572,381 net lbs. or 1,243.4 metric tons uranium
Waste Pits Project (Envirocare of Utah, Inc.)		2 unit trains (100 railcars)	10,670 tons	49,237 tons (458 railcars)
Sewage Treatment Plant Soil Mixed Waste - Envirocare of Utah, Inc. (One-time-only shipment)	Truck-Rail-Truck (Intermodal)	10	120 cu. ft.	120 cu. ft.



Technology transfer saves money

On Sept. 29, two Remote Control Material Handling Systems, previously used at Fernald, were transferred to the Idaho National Engineering & Environmental Laboratory (INEEL), located in Idaho Falls, Idaho. The reuse of the units will save the Department of Energy more than $1.2 million.

The equipment was originally used in Fernald's highly successful Thorium Overpack Project, which was completed in 1997. INEEL expects to use the equipment to limit exposure dose rates and workers' hands-on activities in high radiation areas.

In addition to the $1.2 million savings in eliminating the need to purchase the equipment, INEEL anticipates additional savings in the areas of personal protective equipment and increased work productivity.

Left: The forklift is operated by remote control using a closed-circuit video system to limit the amount of risk to the workers as it empties the contents of a drum (6014-336).

Silo 3 Stabilization Retrieval System on Target

On December 18, 1998, Fluor Daniel Fernald awarded a subcontract to Rocky Mountain Remediation Services L.L.C. (RMRS) for the remediation of Fernald's Silo 3, which contains approximately 5,100 cubic yards of cold metal oxides. In order to support the application of RMRS' chemical stabilization process, Envirobond, and volume reduction process, Envirobric, the Silo 3 residue must be removed by remote retrieval methods. RMRS has recently awarded a subcontract to Framatome Technologies, Inc. (FTI) of Lynchburg, Virginia, to design and fabricate a retrieval arm.

The ReTRIEVR, or Revolving Turret Reeled Cable Incremental Link Extending Vacuuming Robot, is a long-reach vacuuming remote manipulator that can hold a vacuuming tube and a series of mining tools. The ReTRIEVR is also "dexterous," meaning it can be quickly and easily manipulated to reach various areas within the silo and can hold a variety of tools to perform many different functions.

The ReTRIEVR will be fabricated at FTI's Lynchburg location and supplied to RMRS by fall 2000, with delivery to Fernald expected in early 2001.

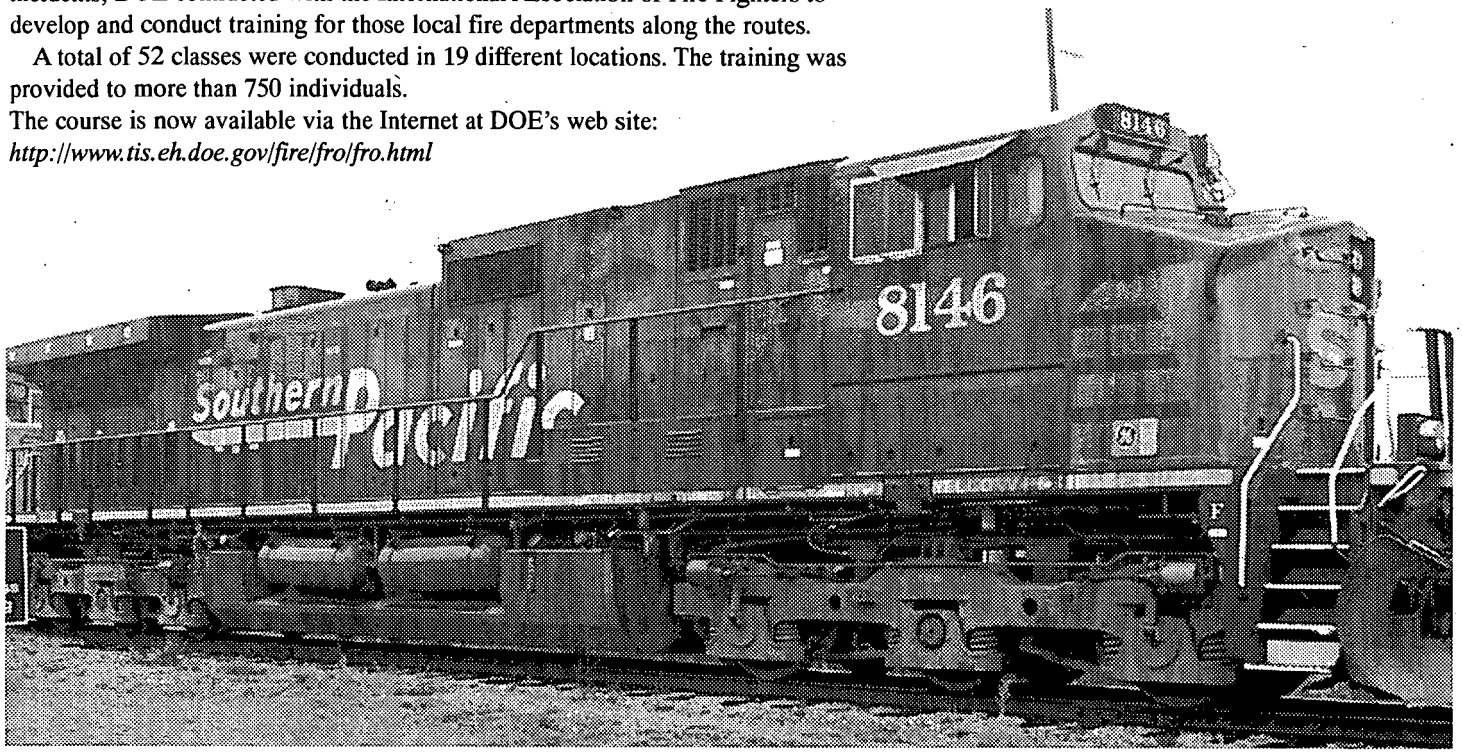
DOE Assists with Emergency Response Training

Transporting the Fernald waste pit material by rail to Envirocare in Utah is one of the largest movements of waste from a DOE site ever attempted in the United States. To ensure that the communities along Fernald's rail and truck routes were sufficiently trained to respond to hazardous materials emergency incidents, DOE contracted with the International Association of Fire Fighters to develop and conduct training for those local fire departments along the routes.

A total of 52 classes were conducted in 19 different locations. The training was provided to more than 750 individuals.

The course is now available via the Internet at DOE's web site:
http://www.tis.eh.doe.gov/fire/fro/fro.html

Below: As part of the needs analysis, a total of 166 jurisdictions were contacted, 93 in the six states along the rail route and 73 in the ten states along the truck route (6349-d1652).



Fernald Health Effects Subcommittee

A Citizens' Advisory Forum on Public Health Issues

Since 1996, the Fernald Health Effects Subcommittee (FHES) has served as an advisory group to the Centers for Disease Control and Prevention (CDC) and agencies engaged in research or public health activities at the Fernald site. The role of the FHES is to determine if historic releases from the former Feed Materials Production Center (FMPC) adversely affected the health of workers and residents in the nearby communities.

A recruitment campaign for committee members is currently underway. The new members will serve either two-year or four-year terms as the charter of the group has now been extended.

Meetings are held four times each year and are open to the public. The next meeting will be at The Plantation in Harrison, Ohio on Dec. 7 and 8. For more information, contact Dr. David Pedersen from the National Institute for Occupational Safety & Health at 513-841-4400.

Fernald - committed to education

Local elementary and secondary schools need everyone's support if education is to be successful. Since 1992, Fernald has made a commitment to become an integral part of the community and through its education outreach programs we hope to make a difference. Here is a sample of current education efforts:

Partnership In Education - an after-school, hands-on science enrichment program throughout the year which includes Crosby Elementary, Miamitown Elementary, and Ross Middle Schools.

Business Partners - a partnership with Northwest High School Career Center and Covedale Elementary that includes programs such as field trips, speakers and mentors.

Archaeology: Can You Dig It? - original teacher curriculum that includes 21 lesson plans, a video/board game and a related field trip.

Junior Achievement - a nationwide program which sends volunteers into area classrooms from first grade through high school to promote economic education and workplace readiness.

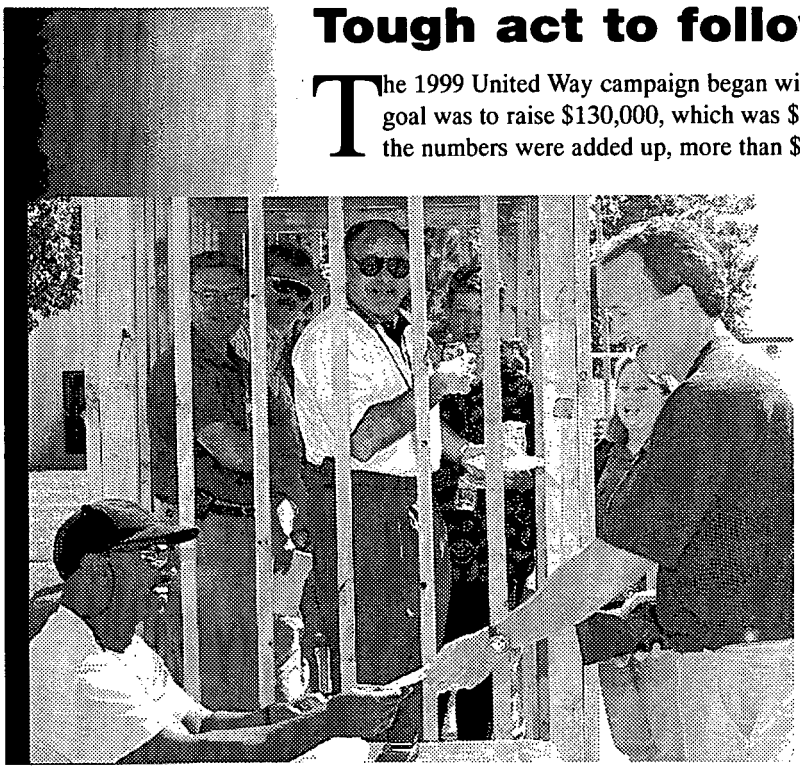
Science Bowl - a regional high school academic competition rewarding the best and brightest in the science, math and technology fields.

Above: Education Outreach programs reach thousands of teachers and students each year (7124-D043).

Tough act to follow

The 1999 United Way campaign began with a grand entrance and went out with a huge bang. This year's goal was to raise $130,000, which was $5,000 more than last years total. As October drew to a close and the numbers were added up, more than $145,000 was raised. The total included team member pledges, a Fluor corporate match and various fund raising events.

The chairs for this campaign were Pam Taylor, Tina Mefford-Craig, Fernald Atomic Trades & Labor Council; and Blaine Burton, International Guards Union of America. Besides an energetic committee supporting the co-chairs, some 200 additional volunteers helped with cookouts, fundraisers and pledge cards. "This was a wonderful experience for me being involved with United Way," said Tina Mefford-Craig. "A lot of money was raised for a very good cause." This year's chairs and volunteers have left behind a tough act to follow.



Left: The United Way Jail and Bail was just one of the fundraisers that was used for this year's campaign. Jeff Wagner (right), hands jailer Tyrone Richardson (left), the money needed to get John Bradburne (center), Fluor Daniel Fernald president and CEO out of jail (7219-d35).

Recent Tours

It's always an interesting visit when a group of Fernald retirees come back for a tour. Many of those visiting this year worked at the site over 30 years.

Left: Rudy Crawford, (back row, second from left) conducts monthly meetings for the Fernald retirees and helps with the coordination of the tour. They meet the second Tuesday of every month at Perkins restaurant in Harrison. All retiree or ex-Fernald employees are invited to attend (6810-d254).

The Morgan Township Volunteer Fire Department celebrated its 50th anniversary last year and took their first tour of Fernald. A small section of the Fernald property is located in Morgan Township. The Morgan Township land was acquired to accommodate the site's rail access connecting to the CSX Transportation spur line.

Right: The tour, which included a visit to the site's Communication Center, was arranged through Robert McCullough, envoy to Morgan Township and Steve Wentzel, a resident of Morgan Township (6810-d253).

Home Sweet Home

Clarissa Merriweather and her four children will have a place to call home very soon thanks to Habitat for Humanity and the many folks who make it all possible. On September 18, after the kickoff ceremony, volunteers from Fernald donned their hard hats, pulled out hammers and nails and got to work. Every Saturday for the next few months, the same scene will take place on Herron Ave. in South Cumminsville until the family moves in.

Fluor Daniel Fernald is a proud sponsor of this house that happens to sit between two other homes also partially funded by Fluor Daniel Fernald. In addition to monetary contributions, Fernald volunteers serve on the steering committee and provide planning, scheduling and direction for the project. *(7321-12)*

New documents added to the Public Environmental Information Center

The following information was added to the Public Reading Room, Administrative Record files and Post Record of Decision files at DOE's Public Environmental Information Center (PEIC):

- Waste Pits Remedial Action Project
  - Draft Non-Typical Waste Management Plan for the Waste Pits Remedial Action Project (WPRAP)
  - Transmittal of Responses to U.S. Environmental Protection Agency Comments on the Final Remedial Action Package for Operable Unit 1
- Soil Characterization & Excavation Project
  - Certification Report for Area 8, Phase II and the Area 6 Triangular Area Draft
  - Project Specific Plan for Pre-design Sampling in the Area 2, Phase I Non-Waste Units and Area 2, Phase II – Part 1
  - Project Specific Plan for Area 8, Phase III – South Pre-certification Real-Time Scan
  - Final Integrated Environmental Monitoring Status Report for Second Quarter 1999
- Silos Project
  - Transmittal of Responses to Ohio Environmental Protection Agency's Comments on the Silos 1 and 2 Final Proof of Principle Testing Reports
- Aquifer Restoration Project
  - June 1999 Operating Report for the Re-injection Demonstration
- Miscellaneous
  - 1998 Integrated Site Environmental Report

Note: This does not represent the complete list of new documents added to the PEIC for the month of August. Contact the PEIC, 513-648-7480 for a complete list of new documents.

Fernald Report
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